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ABSTRACT

A study examined the effect of the active verbalization model in a supplemental reading program to develop metacognitive learning ability in emergent readers. Subjects, 38 below-average first graders from a middle-class elementary school in Ohio, were assigned to one of three groups based on classroom assignments. The teacher instructed the first group in paraphrasing and self-verbalization techniques for an entire school year. The second group received the same treatment for the second semester only, and the third group received similar instruction without the use of instructional discussions and paraphrasing techniques. Subjects were pre- and posttested with the Gates MacGinitie Reading Test. The study was replicated for a second year. Results indicated that: (1) subjects who received paraphrasing instruction for the second semester only made slightly higher gains than subjects who received instruction for the entire year; (2) both groups had significantly higher gains than the control group; and (3) children receiving paraphrasing instruction appeared to approach reading as the linkage of associated reading strategies used to derive meaning from print, while control group children appeared to approach reading in a fragmented manner. Findings suggest that teaching children to read strategically helps them become more independent and fluent and increases metacognitive approaches to reading comprehension. (Contains 33 references, a figure illustrating the active verbalization model, and a figure of data are included.) (RS)

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# Positive Effects of Teaching Emergent Readers to Verbalize Effective Reading Strategies*

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Positive Effects of Teaching Emergent Readers

to Verbalize Effective Reading Strategies

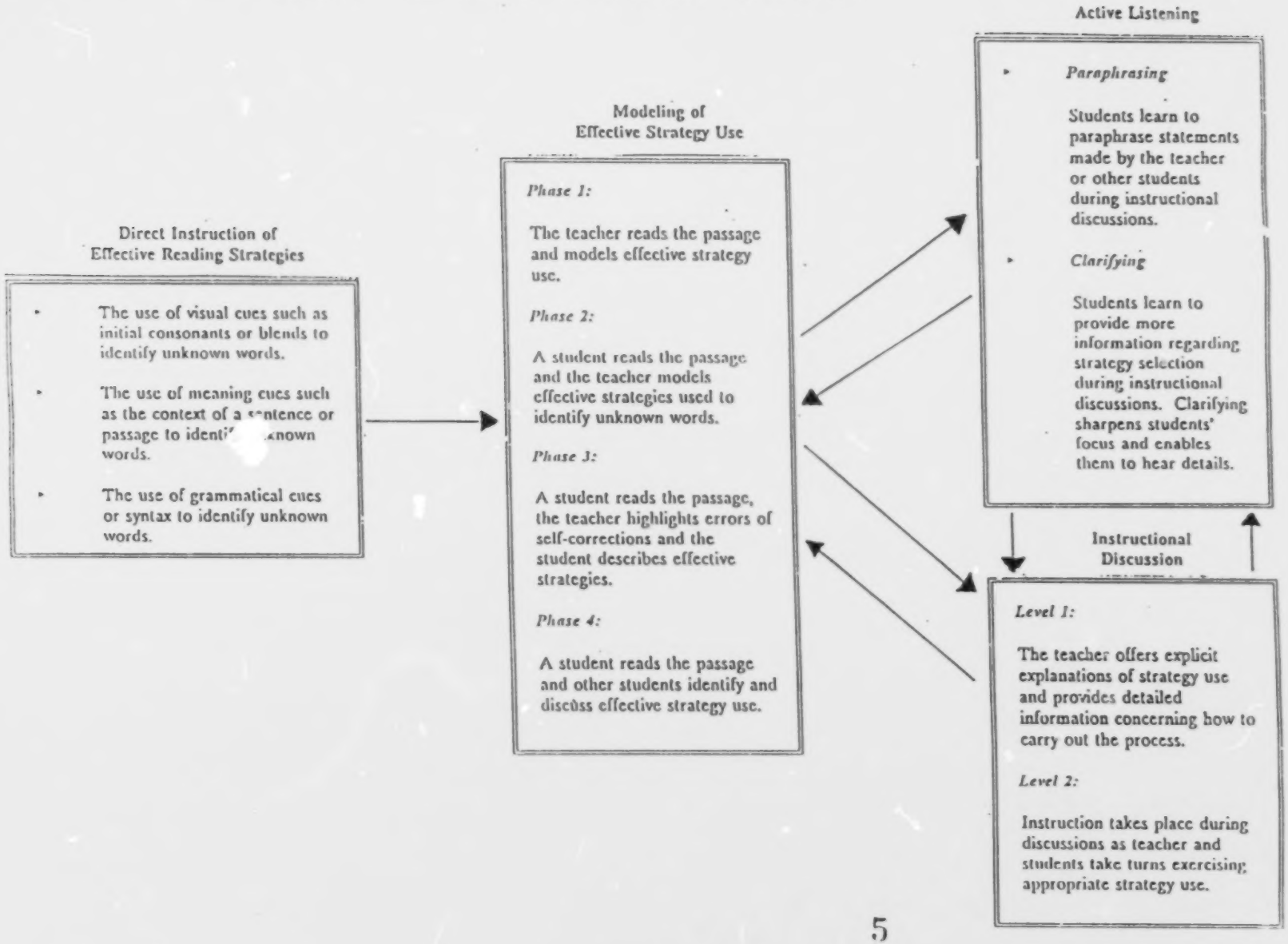
## Introduction

Until recently, few researchers have studied paraphrasing and self-verbalization techniques as metacognitive strategies. An instructional program that includes paraphrasing, in addition to discussions of strategy selection and use, teacher modeling, and direct instruction of appropriate reading strategies, could be an effective means of assisting children experiencing difficulty learning to read.

Although some whole language instruction literature implies that this type of strategic teaching may not be desirable (Doake, 1987; Goodman, 1986; Veatch, 1988), researchers have found that these elements of direct instruction can be useful in whole language classrooms (Fountas & Hannigan, 1989; Newman & Church, 1990; Slaughter, 1988). Studies of reading programs show that clearly defined objectives applied to effective strategy use, teacher directed-instruction, and teacher modeling are characteristics of effective teaching (Adams, 1990; Duffy, Roehler, & Putman, 1987; Evans & Carr, 1985; Rosenshine & Stevens, 1984). A comprehensive body of research indicates that learning is more likely to occur when students know the tasks required and how to apply learned strategies in practical settings. In other words, effective whole language instruction can be conducted concomitantly with certain specific strategic techniques.

Figure 1 illustrates an instructional paradigm referred to as active verbalization. The program teaches emergent readers to describe, evaluate, and apply effective reading strategies. The model emphasizes direct instruction of three reading strategies similar to

Figure 1. THE ACTIVE VERBALIZATION MODEL


Direct Instruction of Effective Reading Strategies
The use of visual cues such as initial consonants or blends to identify unknown words.
The use of meaning cues such as the context of a sentence or passage to identify unknown words.
The use of grammatical cues or syntax to identify unknown words.
Modeling of Effective Strategy Use
Phase 1:
The teacher reads the passage and models effective strategy use.
Phase 2:
A student reads the passage and the teacher models effective strategies used to identify unknown words.
Phase 3:
A student reads the passage, the teacher highlights errors of self-corrections and the student describes effective strategies.
Phase 4:
A student reads the passage and other students identify and discuss effective strategy use.
Active Listening
Paraphrasing
Students learn to paraphrase statements made by the teacher or other students during instructional discussions.
Clarifying
Students learn to provide more information regarding strategy selection during instructional discussions. Clarifying sharpens students' focus and enables them to hear details.
Instructional Discussion
Level 1:
The teacher offers explicit explanations of strategy use and provides detailed information concerning how to carry out the process.
Level 2:
Instruction takes place during discussions as teacher and students take turns exercising appropriate strategy use.





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those described by Clay (1985). Instructional discussions about effective strategies used by the learner and modeling of effective strategy use by the teacher are key elements of the program. Students are also taught paraphrasing and clarifying skills to help them internalize effective strategy use and encourage active listening.

This study examines the effect of the active verbalization model in a supplemental reading program to develop metacognitive learning ability in emergent readers. The researchers examine three groups of students over a one year period. The study was replicated for a second year. The treatment provides one experimental group with a full academic year of learning with self-verbalization techniques taught as an integral part of a holistic supplemental reading program. Researchers instruct a second group in the use of paraphrasing for the second semester only. By providing the second group with the treatment for only the latter half of the school year, the researchers are able to compare the effectiveness of the treatment using children with little or no knowledge of effective strategy use to children having one semester of classroom reading instruction. The third group serves as control.

**Perspective/Theoretical Framework**

Two areas of research provide the theoretical framework for the active verbalization model. Literature on metacognition and reading instruction supports the notion that self-verbalization techniques may be an effective instructional strategy. Researchers have found that children having trouble learning to read can be helped by instruction that focuses on the use of cognitive strategies and metacognition (Dole, Duffy, Roehler, and Pearson, 1991). Part of this instruction includes teaching children to paraphrase various cognitive

routines. Researchers further suggest that similar strategies have proven to be effective in enhancing comprehension and self-monitoring abilities in young readers. Such instructional programs encourage children to explain and evaluate reading strategies, discuss reading strategies as others use them, and monitor reading performance through self-verbalization techniques (Baker & Brown, 1984; Brown & Smiley, 1978; Gates, 1983; Miller, 1987).

Clay (1985) asserts that allowing children to verbalize reading strategies within the context of a reading lesson will encourage self-monitoring behavior, searching for cues, and self-correction of errors. According to Clay, teaching children to verbalize these processes will encourage them to examine their reading behavior.

"Instructional Conversations" have been described as effective in helping students internalize reading strategies (Goldenberg, 1993). Employing metacognition and self-verbalization techniques, instructional conversations are discussion based lessons intended to create opportunities for student's cognitive and linguistic development. The teacher encourages students to express ideas, discuss strategy use, and acquire new knowledge based on prior knowledge and experience. This instructional strategy assumes students play an important role in constructing new knowledge and acquiring new understandings.

Instructional discussions provide the teacher with important diagnostic information. As students explain the rationale for strategy selection and application, the teacher can identify how the children process print. Instruction is adjusted to student level and specific need. This teaching has been proven effective in strategy instruction. (Clark & Peterson, 1986).

The effects of self-verbalization on self-efficacy and reading comprehension are a second area of research contributing to the design of the model. Self-efficacy refers to a learner's personal estimate of achievement abilities in a cognitive task. Self-efficacy influences the choice of strategies used, effort expended, and the ability to complete a given task (Bandura, 1977).

When children have difficulty learning to read, they often feel any success they experience is the result of luck or because the task is easy (Butowsky & Willows, 1980). They think they have little personal control over their own reading performance. As a result, they may become reluctant to pursue difficult tasks or take risks in selecting appropriate reading strategies. Teaching children to paraphrase the content of instructional discussions could help them gain confidence in their own ability and raise self-efficacy (Bandura, 1982).

## Methodology

The students involved in the study were thirty-eight first graders from a middle-class elementary school in Ohio. The experimenters identified the children as below average readers based on their scores on the Gates-MacGinitie Reading Test Level R Form K (MacGinitie, 1989). Classroom teachers also identified these children as needing additional help in learning to read. The students participated in a pullout program designed to supplement classroom instruction for thirty minutes a day, five days a week.

Researchers assigned students to one of three groups based on classroom assignments. Although group assignment was not random, inspection of pre-reading composite scores determined by the Metropolitan Readiness Test Level 2 (Nurss & McGaurvan, 1986), administered six months prior to the study revealed the groups were approximately

equivalent. The teacher instructed the first group in paraphrasing and self-verbalization techniques for the entire year. The second group received the same treatment for only the second semester; the third served as control.

The children in the experimental groups received supplemental reading instruction consisting of oral reading in beginning first grade level trade books. Instruction focused on the use of effective reading strategies, making children aware of reading errors, and self-correction of errors. The teacher modeled effective strategy use whenever possible, involved the group in discussions of strategy selection and use and taught active listening skills. The control group received a similar program without instruction in the use of instructional discussions and paraphrasing techniques.

## Pretests

The Gates MacGinitie Reading Test was used to determine student reading level. A second informal measure was used to assess each child's self-verbalization skills. This test contained five statements describing strategies used by beginning readers. The examiner read the statements to each child and asked the child to repeat the statement in his or her own words. As the child responded, the examiner recorded the statements. Results were analyzed by (1) accuracy of response, (2) whether the child paraphrased or parroted, and (3) the number of words used to respond.

## The Instructional Program

### Direct Instruction of Effective Reading Strategies

Current notions of effective reading instruction highlight the importance of flexible

adaptive strategies intended to promote comprehension (Johnston, 1985; Pressley, Goodchild, Fleet, Zajchowski, & Evans, 1989). This type of instruction focuses on teaching children to select effective strategies according to the difficulty of the text and the purposes for reading. Children become better readers, and are able to select strategies that lead to regulation and repair. As a result, they become self-monitoring and develop a metacognitive awareness of efficient strategy use.

This cognitive view of reading provided the foundation for the active verbalization model. The experimental group children were taught to select and evaluate strategies that would help them read more fluently. Three specific strategies were taught during group reading activities. Using trade books, self-selected by the students, the teacher taught the subjects to use visual cues such as beginning letters or blends to identify unknown words. They were taught to confirm guesses by using syntactical cues or by asking themselves if the word selected "sounded right" in the sentence. Finally, they were taught to employ meaning cues to determine if the word selected made sense within the context of the passage or in relationship to picture cues. The teacher encouraged children to use these strategies consciously and adaptively during real reading situations. Instruction further emphasized the importance of using multiple cuing systems when appropriate.

**Modeling**

The modeling component of the active verbalization lesson consisted of four phases. During Phase 1, the teacher read the passage to experimental group children. She highlighted a word that may be difficult to identify and discussed strategies that could be used to identify the word. In Phase 2, a student was asked to read the passage and the

teacher pointed out troublesome words and suggested effective strategies. In these two phases, the teacher described the mental reasoning used in selecting reading strategies. Descriptions were explicit and provided unambiguous information detailing strategy use (Duffy, Roehler, & Herrmann, 1988).

In Phase 3 of the modeling, a student read the passage and the teacher highlighted self-corrections made by the reader. The teacher then asked the reader to elaborate on the strategies used. During Phase 4, a student read the passage and other students in the group identified and discussed effective strategy use. These last phases of the modeling component were intended to foster independence in the selection and implementation of effective strategies.

During all phases of the modeling component, the teacher utilized a descriptive model that emphasized effective strategies used by good readers rather than a prescriptive model of incremental steps. The teacher model emphasized the effectiveness of flexible adaptation of strategies according the textual cues and difficulty instead of rigid patterned procedures (Duffy & Roehler, 1985; Duffy & Roehler, 1987).

The following dialogue illustrates the modeling element of the lesson. Portraying Phase 2 of the modeling component, the group listens to the passage read by a student as the teacher demonstrates the thinking used to select the strategy.

Student: He will ride in the car. (The student pauses, mutters the sound of the letter "t" and rereads the passage correctly.) He will ride in the truck.

Teacher: At first when you read the sentence you called this word "car". (The teacher directs the group's attention to the word "truck" in the text.) Then you

noticed that this word couldn't be "car" because "car" doesn't begin with "t". When you read the sentence again with the word "truck" you knew that this was a better choice. Truck begins with "t" and makes sense in the sentence.

**Instructional Discussions**

The instructional discussion element of the active verbalization model is based on the "Instructional Conversation" model described by Goldenberg (1992). This component emphasizes active involvement of both teacher and students with no one individual dominating the conversation. All those involved are given the opportunity to provide input and react to statements (Goldenberg, 1992).

Instructional discussions were utilized by experimental group children at two levels in real reading situations. At the first level, the teacher initiated discussions of self-corrections made by students during reading activities. She offered detailed descriptions of strategy use and provided information about where and when a strategy would be effective (Pressley, Goodchild, Fleet, Zajchowski, & Evans, 1989).

A reciprocal teaching approach was utilized at the second level of the instructional discussion (Palinscar & Brown, 1984). At this level, instruction took place during discussion as teacher and student took turns implementing effective strategy use. The teacher directed learning activities at the onset of instruction, gradually transferring self-regulation of strategy use to the students (Pressley, Goodchild, Fleet, Zajchowski, & Evans, 1988).

The following example illustrates an instructional discussion executed at the second level. The teacher assumes the role of discussion leader. She uses the conversation as an opportunity for direct instruction of reading strategies. She encourages the children to

support strategy choices by providing explanations of reasoning used in strategy selection.

(A Student reads a passage, has trouble with a word and then finishes reading the page.)

Teacher: Good job! At first you had trouble with the word "boat" and then you knew the word. How did you know the word was "boat"?

Student 1: This word begins with "b".

Teacher: That's right. This word begins with "b" and boat begins with "b". Are there other clues we can use to help figure out the word?

Student 2: Look at the picture. There is a boat in the picture.

Teacher: Very Good! Is there a way we can check to see if our guess is correct?

Student 2: Check and see if boat makes sense in the story.

Teacher: That's right. We can use the picture as a clue and then check and see if our guess makes sense in the story.

**Active Listening**

Two types of active listening skills were taught to experimental group children. First, the experimenter taught students to paraphrase statements made by other students during instructional discussions.

Paraphrasing as used in this study requires the individual to state in his or her own words the content of a statement made by another concerning a specific reading strategy. The process includes a personal reflection of how an individual processes print. This definition of paraphrasing differs significantly from parroting. Parroting requires the individual to remember and repeat the exact words stated by someone else. Paraphrasing

requires the individual to comprehend the content of discussion and then restate significant elements.

The example that follows demonstrates the paraphrasing element of the lesson. The teacher models the technique by paraphrasing a strategy statement of a child in the group. Another child is then given the opportunity to paraphrase the content of the conversation.

Teacher: When you first read the sentence you said "There was Archie cat." Then you read the sentence again and said "There was Archie's cat". How did you know the word was "Archie's" and not "Archie" ?

Student 1: Because "Archie cat . . ." didn't sound right and "Archie's cat . . ." sounded better".

Teacher: "Good! You knew that "Archie cat . . ." sounded funny and "Archie's cat . . ." sounded right. Was there something else that told you the word was "Archie's" and not "Archie" ?

Student 1: "The word ended with 's'".

Teacher: Excellent! You noticed that the word ended with "s". Who can tell us the two ways we knew what was giving us trouble was "Archie's".

Student 2: "Archie's" sounded better and there was an "s" at the end of the word.

Teacher: Very good! You told us in your own words how we figured out the word.

The second active listening skill used in the study was clarifying. Often going along with paraphrasing, clarifying activities involved asking questions about a statement to more fully understand statements made by others. Students were taught to ask for more information regarding reading strategy selection during instructional discussions. The skill

was intended to sharpen student focus and enable them to hear specific details of reasoning used in strategy selection. The following example might take place if a child were having difficulty paraphrasing a strategy statement.

Teacher: Can you tell us one of the clues we can use to figure out a new word?

Student: Picture.

Teacher: I need more words to understand what you mean.

Student: Look at the picture.

Teacher How would looking at the picture help?

Student: Look at the picture and see if something in the picture makes sense in the sentence.

Teacher: Good job of telling how the picture helps us figure out a word.

At the onset of instruction, the teacher assumed the responsibility for initiating paraphrasing and clarifying activities. As students refined these skills, the teacher encouraged them to utilize paraphrasing and clarifying activities as needed.

## Results

The researchers used a repeated measures analysis of variance design to examine differences in the scores of the Gates-MacGinitie Reading Test. Experimenters tested the subjects at the initiation of the project; after one semester, after only Group I had received paraphrasing instruction; and a final measurement at the end of a full academic year of instruction. Examiners used the Gates extended scale scores in the analysis. An examination of the Gates scores throughout the project shows that group II (those receiving paraphrasing instruction for only the second semester) made slightly higher gains than group I (those

receiving the instruction for the entire year) and both groups I and II had significantly higher gains ($p < .001$) than the control group. These results are presented in Figure 2 and are remarkably consistent over a two-year period. Each year's results report the pattern found in Figure 2. Statistical tests for each year were also significant ($p < .05$) when each year was examined separately.

Observational data showed that children receiving paraphrasing instruction appeared to approach reading as the linkage of associated reading strategies used to derive meaning from print rather than a series of isolated skills. This is evidenced when the experimental group performed better on classroom comprehension tests than did the control group. Observations of the experimental group children further showed that they were more likely to self-correct errors in oral reading, performed better on cloze tasks, and were more independent in completing comprehension activities.

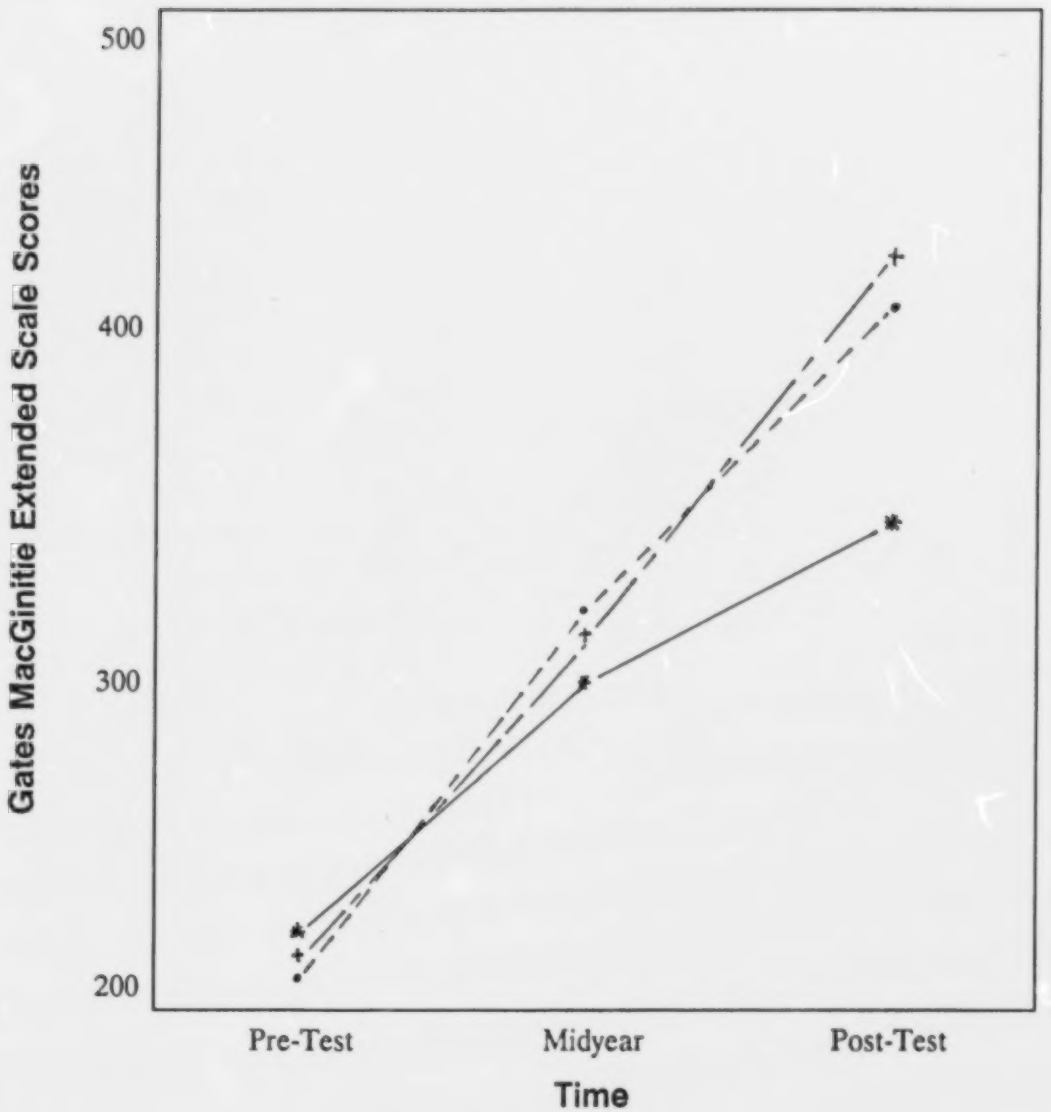
Control group children, those without paraphrasing skills, appeared to approach reading in a fragmented manner. For example, throughout the project these children seemed more concerned with decoding skills and were less likely to use two or more reading strategies to bring meaning to reading. Furthermore, miscue analyses also suggested experimental group children were less fluent oral readers than the control group children. During the first year of instruction, all experimental group members achieved passing scores on the reading tests while only one of the control group passed.

## Discussion

This study is important for two major reasons. Because this study reports the pooling of two separate, similar studies yielding very similar results, the findings may be

Figure 2. GRAPH OF INTERACTION

Gates-MacGinitie Extended Scale Scores (means) and Time for Experimental and Control Groups*




*F-ratio for Group by Time is 7.38 ($p<.001$)

generalizable to other groups and populations of learners. Informally, one of the authors has approximated this study with other (non-reading) groups of students, with similar positive results. This suggests that the active verbalization strategies may, in fact, serve as causal mediating variables in the development of skill processes such as reading, writing, and mathematics.

A second finding of import to reading teachers is the evidence that links the specific use of strategic teaching methods with the whole language environment. As noted in the introduction, some whole language writers have rejected the notion that strategic teaching practices can be not only consistent with whole language, but also can enhance the development of student achievement in the whole language classroom.

**Educational Importance**

Data acquired in this study reinforce existing research and suggest directions for classroom reading instruction. The most significant are:

1. Teaching children to read strategically helps them become more independent and fluent and increases metacognitive approaches to reading comprehension (Baker & Brown, 1984).
2. Paraphrasing and self-verbalization routines allow students to explain reasoning used in the selection and application of reading strategies. The use of these techniques increases the probability that independent problem solving strategies will be developed. Through mediation by the teacher and application of what is learned, students are more likely to internalize strategies (Feitler & Hellekson, 1993).
3. Instructional discussions provide diagnostic information. As a student explains the

reasoning used in strategy selection, teachers can identify how students process print and adjust instruction to the student's level and needs (Feitler & Hellekson, 1993; Pressley, 1982; Rohwer, 1973; Siegler, 1985).

4. Because paraphrasing is an active listening skill, students will learn to attend to strategies the teacher has emphasized during group reading activities.

5. Activities commonly present in whole language classrooms used in concert with the active verbalization model can help children process print while developing a genuine love for reading.

6. The Active Verbalization Model facilitates the development of phonemic awareness in beginning readers. Phonemic relationships are taught in the context of real reading situations rather than in the traditional fragmented, skill and drill approach.

This study provided an opportunity to test these ideas in a natural school setting. These preliminary results of two years of research are encouraging and suggest an important direction for reading instruction and for the preparation of elementary reading teachers.

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